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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,232	04/26/2000	David M. Manyak	06695.0003	9717

22852 7590 05/31/2006

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EXAMINER	
LY, CHEYNE D	

ART UNIT	PAPER NUMBER
2168	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/558,232	MANYAK ET AL.	
	Examiner	Art Unit	
	Cheyne D. Ly	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43,58-105,107,108,110-129,132,134-142,144 and 145* is/are pending in the application.

4a) Of the above claim(s) *4-9, 11-13, 24-26, 29-32, 58, 65, 66, 69, and 111-119* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *See Continuation Sheet* is/are rejected.

7)☒ Claim(s) *68 and 134-138* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims rejected are 1-3,10,14-23,27,28,33-43,59-64,67,68,70-105,107,108,110,120-129,132,134-142,144 and 145.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 12, 2006 has been entered.

2. Applicants' arguments have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

3. Claims 1-3, 10, 14-23, 27, 28, 33-43, 59-64, 67, 68, 70-105, 107, 108, 110, 120-129, 132, 134-142, 144, and 145, system comprising a memory of data about compounds and targets with interaction information, known compounds with known biological activity, have failed in pre-clinical or human clinical test, and molecular targets which include receptors, are examined on the merits.

Sequence Compliance

4. It is noted that amendment to the specification, filed September 10, 2003, has been entered in light of *In re Fouche*.

5. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR § 1.821(a)(1) and (a)(2). See, for example, Figure 2A, filed September 10, 2003. However, this application fails to comply with the requirements of 37 CFR § 1.821 through 1.825 because Figure 2A, contains amino acid sequences with sequence lengths that are equal to or greater than 4 amino acid molecules and these sequences do not have SEQ ID Nos cited along with each sequence in the specification or Figure. Applicants are also reminded that SEQ ID Nos are not required in Figures per se, however, the corresponding SEQ ID Nos then are required in the Brief Description of the Drawings section in the specification. Applicants are also reminded that a CD-ROM sequence listing submission may replace the paper and computer readable form sequence listing copies. Applicant(s) are required to submit a new computer readable form sequence listing, a paper copy for the specification, statements under 37 CFR § 1.821(f) and (g), if there is a need to list additional sequences in the listing. Applicant(s) are given the same response time regarding this failure to comply as that set forth to respond to this office action. Failure to respond to this requirement may result in abandonment of the instant application or a notice of a failure to fully respond to this Office action.

OBJECTIONS

6. Claims 134-138 are objected to under 37 CFR 1.75 as being in improper form because said claims depend from cancelled claim 133. See MPEP § 608.01(n). Accordingly, the claims 134-138 will not been further treated on the merits.

7. Claim 68 is objected to under 37 CFR 1.75 as being in improper form because said claims depend from withdrawn claim 65. See MPEP § 608.01(n). Accordingly, the claim 68 has not been further treated on the merits.

CLAIM REJECTIONS - 35 U.S.C. § 112, SECOND PARAGRAPH

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 60, 61, 63, 64, 71-86, 125, 133, and 138 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 60 recites the limitation "the results of tests" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is noted that claim 59 from which claim 60 depends no longer recite the limitation of "the results of tests." Applicant has amended claim 59 to recite "the results of *in vitro* assays." The same issue is present in claims 61, 63, 64, 71-86, 125, 133, and 138.

CLAIM REJECTIONS - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-3, 10, 14-23, 27, 28, 33-43, 59-64, 70, 76, 78, 89-91, 93, 94, 97-105, 120, 121, 124, 125, 127-129, 132, and 139-142 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. (1998) (Goto hereafter) taken with Antman et al. (1992) (Antman hereafter).

BASIS OF REJECTION

14. In regard to claims 1, 33, 35, 37-40, 59-61, 63, 64, 132, and 139, Goto describes a computer system (Abstract etc. and page 591, column 1, Availability §) comprising:

a. A first database containing, records corresponding to a plurality of chemical compounds and records corresponding to biological information related to effects of such chemical compounds on biological systems (page 593, column 2, COMPOUND section, and page 595, column 1, lines 1-9);

b. A second database containing records corresponding to a plurality of molecular targets (page 592, column 2, ENZYME section);

c. A third database (Figure 3) containing records corresponding to results from *in vitro* assays (page 597, column 2, line 33, to page 598, column 2, especially yeast two-hybrid system for protein-protein interactions, page 592, column 1, lines 26-32, especially known experimental observations, and page 598, column 1, lines 14-27, especially Km values) measuring interactions between each of a plurality of compounds in the first database and each of a plurality of molecular targets in the second database (page 596, columns 1-2, Path computation of LIGAND §), the results including information on the effect that a compound selected from the first database has on the interaction between a reference compound know to interact with a selected molecular target from the second database and said selected molecular target (page 597, column 1, Organization of LIGAND §); and

d. A user interface allowing a user to view the selected compound and to selectively view information from the first database, the second database, and the third database as it relates to a compound record in the first database or as it relates to a molecular target in the second database (page 598, column 1, lines 3-9, and figures 1-2).

15. However, Goto does not disclose the limitation of a first database of chemical compounds that have failed in preclinical or human clinical tests, as in instant claims 17 and 142, and as an option of the elected subject matter species.

16. Antman et al. discloses an improvement for "better databases" for the treatment of patients in clinical trials (page 240, Conclusions §). An artisan of ordinary skill in the art at

the time of the instant invention would have been motivated by Antman et al. to recognize that clinical trial data corresponding to interaction test results are available in Medline.

17. In regard to claims 17 and 142, Antman describes literature a search for meta-analyses and randomized control trials using the Medline database (page 241, column 2, last paragraph). The searches resulted in data directed to treatments that have no effect on mortality or are potentially harmful (page 240, Data Synthesis §) and "negative trial, suggesting that the treatment does not work" (failed in human clinical tests) (page 246, column 1, "Negative" RCTs §). Antman et al. supports that the Medline database comprises information directed to treatment therapies using a plurality of drugs (compounds) and their effects on patients (biological systems) (page 241, column 3, lines 3 to last line), as in instant claims 17 and 142.

18. The citation of Goto et al. (1998) taken with Antman et al. (1992) as directed to Internet based systems connected via the World Wide Web could reasonably be interpreted, by one of ordinary skill in the art at the instant time of the invention, as a "computer system." For example, KEGG is a Web based system which is networked to a plurality of databases such as chemical compounds, molecular targets from GenBank (Medline) (Goto et al., Abstract etc., page 594, column 2, Results and Discussion §). Antman et al. supports that the Medline database comprises information directed to clinical control trials using a plurality of drugs (compounds) and their effects on patients (biological systems) (page 241, column 3, lines 3 to last line).

19. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the KEGG computer system comprising Medline to search for interaction test results and clinical trial data as taught by Goto et al. and Antman et al.

20. In regard to claim 2, Goto describes the interaction includes binding and the effect includes inhibitory effect (Page 592, Column 1, Lines 49-53).

21. In regard to claims 3, 27, 41, 42, 103, and 125, Goto describes the chemical compounds includes compounds with known biological activity such as binding (Page 597, Lines 32-46, Table 3 on page 595).

22. In regard to claim 10, the inclusion of Ogata et al. is not being used as prior art, but only to expand on the well known in the art properties of KEGG. Ogata et al. describes KEGG comprising the molecular targets include receptors (Ogata et al., Page 30, Table 2, Cell Processes).

23. In regard to claims 14, 15, and 18-22, Goto describes the records of the first database corresponding to a plurality of chemical compounds are organized in categories related to the description and properties of the compounds (Page 593, Column 2, Lines 10-28).

24. In regard to claims 28, 34, 36, 42, 43, and 99, Goto describes the chemical compounds include compounds with known biological activity (Table 4 on page 595).

25. In regard to claim 23, Goto describe means for setting an interaction test threshold corresponding to said effect and means for selecting the compound when its results in a test meeting the interaction threshold (page 597, column 2, lines 6-13).

26. In regard to claim 62, Goto describes a fourth database containing records corresponding to the effect of chemical compounds contained in the first database on biological systems (page 593, column 1, lines 1-19).

27. In regard to claims 78, 128, and 129, Goto describes the tests used to generate results comprising the third database are based on reporter gene assays or functional assays (Page 591, Column 2, Lines 12-22).

28. In regard to claims 70 and 76, Goto describes the third database contains records corresponding to complete sets of results from a screening process (page 591, column 2, lines 9-22).

29. In regard to claim 124, Goto describes records corresponding to the molecular targets in the second database are grouped by family, superfamily, or subfamily (Figure 3, page 596, and page 597, column 1, lines 11-14).

30. In regard to claims 104 and 127, Goto describes records in the first database corresponding to biological information related to mechanism of action of selected chemical compounds on biological systems includes information on at least one of the following categories: major pathway (Page 595, Column 2, Lines 1-2 and Page 596, Column 1, Lines 1-4).

31. In regard to claims 97, 98, and 120, Goto describes records corresponding to the chemical compounds in the first database include 3-D pharmacophore (Page 594, Column 2, Lines 13-17).

32. In regard to claims 89-91, 93, and 94, Goto describes records corresponding to the chemical compounds in the first database include at least a chemical name etc. (Page 592, Column 2, Lines 4-5, and Page 593, Column 1, Lines 11-19).

33. The COMPOUND section is constructed manually, except for the link information to ENZYME and KEGG/PATHWAY, by consulting with various sources, such as the Merck Index (Budavari, 1996), and dictionaries of biochemistry and organic chemistry" (Page 593, Column 2, lines 28-32). The inclusion of a document containing the description of the Merck Index is provided to support and expand on prior art cited from Goto et al.

34. In regard to claim 16, Goto describes via The Merck Index the first database includes a natural product database (Merck Index, Page V, Lines 13-15 and 31-32).

35. In regard to claims 100-102, 140, and 141, Goto describes via The Merck Index the records in the first database corresponding to biological information includes information on chemical name...toxicity etc. (Merck Index, Page ix and Page x, Lines 17-19, Structure section, Physical Data section, and Literature References section).

36. In regard to claims 105 and 121, Goto describes records corresponding to biological information related to effects of the chemical compounds on biological systems can be searched and analyzed using computer based searching and data analysis methods (Page 596, Lines 24-26 and 30-33).

RESPONSE TO ARGUMENTS

37. On page 33, Applicant argues that Antman does not describe a computer database *per se*. Applicant's argument is note persuasive because Antman describes the Medline database (page 241, column 2, last paragraph) as supported by Applicant's statement of "the authors used the online MEDLINE database as a source of information (page 34, lines 1-2). When the prior art references are read as a whole, Goto and Antman render the claimed invention obvious as discussed above.

38. On page 34, Applicant argues "MEDLINE, however, is a completely different type of database than those described in the pending application." Applicant's argument is not persuasive because the claimed invention is directed to databases and the cited prior art references describe the databases. When the prior art references are read as a whole, Goto and Antman render the claimed invention obvious as discussed above. In regard to Applicant's argument that the "MEDLINE..., is a completely different type of database", the Office does not have the facilities for examining and comparing the applicant's product with the products of the prior art, the burden is on the applicant to show a novel or unobvious difference between the claimed products and the products of the prior art (e.g. that the products of the prior art do not possess the same material structural and functional characteristics of the claimed product). See in re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

39. On pages 34-37, Applicant's arguments are directed to limitations that are not present in the instant claims; therefore, not persuasive as discussed below. For example, the arguments

on pages 34-35 are directed to the limitation of "multi-dimensional databases" which is not recited in the claims. On pages 36-37, Applicant presents arguments directed to "externally introduced chemical compounds" and "extrinsic compound" which are not recited in the claims. It is noted that the claims are given their broadest reasonable interpretation consistent with the specification. However, the instant claims are not limited to the critical limitations that have been cited from the specification by Applicant as limitations that are not disclosed by the prior art. As cited by the MPEP, the court explained that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." The court found that applicant was advocating the latter, i.e., the impermissible importation of subject matter from the specification into the claim.). See also In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (MPEP §2111 [R-1]).

40. Specific to the limitation of "*in vitro* assays", Applicant's argument is not persuasive because the prior art has been cited to describe the required limitation. Goto describes records corresponding to results from *in vitro* assays such as yeast two-hybrid system for protein-protein interactions (page 597, column 2, line 33, to page 598, column 2), known experimental observations (page 592, column 1, lines 26-32) and Km values (page 598, column 1, lines 14-27). One of ordinary skill in the art at the time of the invention would have recognized that such records have been derived from *in vitro* assays.

41. Specific to the argument of "records corresponding to biological information," the pointed to disclosure is not persuasive because the cited prior art describe the required limitation as exemplified by the specification. For example, Goto describes via The Merck Index the records in the first database corresponding to biological information includes information on chemical name...toxicity etc. (Merck Index, Page ix and Page x, Lines 17-19, Structure section, Physical Data section, and Literature References section).

42. On page 37, Applicant argues that the amendments made to all of the independent claims have overcome the prior art of Goto and Antman, therefore, makes all the rejected claims allowable. Applicant's argument is not persuasive as discussed above.

43. On pages 37-39, Applicant's arguments, as direct to Goto and Antman, are not persuasive as discussed above.

44. Claims 71-75 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. (1998) (Goto hereafter) taken with Antman et al. (1992) (Antman hereafter) as applied to claims 1-3, 10, 14-23, 27, 28, 33-43, 59-64, 70, 76, 78, 89-91, 93, 94, 97-105, 120, 121, 124, 125, 127-129, 132, and 139-142 above, and further in view of Liu et al. (1997) (Lie hereafter).

45. Goto describes "it has become a high priority to construct a new bread of database that defines functional aspects of genes, cells and organisms" (page 591, column 2, lines 19-22) by establishing metabolic pathways based on experimental observations (page 592, column 1, lines 29-32). One of ordinary skill in the art at the time of the instant invention would

have been motivated by Goto to improve the method as described by Goto and Antman as cited above with the experimental observations described by Liu.

46. In regard to claims 71-75 and 80, Goto describes records in the third database corresponding to the results of tests to determine the interaction between compounds in the first database and targets in the second database includes positive interactions and negative or lack of interactions (Abstract etc. and Page 21887, column 2, lines 23-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the experimental observations described by Liu in the databases of Goto and Antman.

47. Claims 67, 77, 79, 81-88, 95, 108, 110, 122, 123, 144, and 145 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. (1998) (Goto hereafter) taken with Antman et al. (1992) (Antman hereafter) as applied to claims 1-3, 10, 14-23, 27, 28, 33-43, 59-64, 70, 76, 78, 89-91, 93, 94, 97-105, 120, 121, 124, 125, 127-129, 132, and 139-142 above, and further in view of Ogata et al. (1999) (Ogata hereafter).

BASIS FOR REJECTION

48. Ogata describes LIGAND of Goto (reference 5) as being tightly integrated with KEGG as well as with most of the major molecular biology databases (Ogata, page 29, column 2, lines 1-6). Therefore, one of ordinary skill in the art at the time of the instant invention would have been motivated to combine the teaching of Goto and Antman, as cited above, with the

teaching of Ogata to form a tightly integrated with KEGG and other molecular biology databases.

49. In regard to claims 67, 108, and 110, Goto and Antman describe all the limitations of said claims, except for the limitation of receptors. Ogata describes the second database contains records corresponding to a plurality receptors (Page 30, Table 2, Cell Processes). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use KEGG as described by Ogata, Goto, and Antman.

50. In regard to claim 77, Goto and Antman describe all the limitations of said claims, except for the limitation inositol triphosphate. Ogata describes the limitation of inositol triphosphate (page 30, Table 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use KEGG as described by Ogata, Goto, and Antman.

51. In regard to claims 79 and 81-86, Goto and Antman describe all the limitations of said claims except for the limitation of numerical values. Ogata describes "the interaction...as numerical values" (Page 33, Column 2, Lines 48-53, and page 34, column 1, lines 32-37). It is well known in the art that the techniques of yeast two-hybrid system and microarray expression assays that interactions are determined by some potency value or compared to some specified threshold value.

52. In regard to claims 87, 88, 95, 144, and 145, the limitations of LOPAC, United States Pharmacopeial Convention Inc.'s USP DI Series, and SMILES codes are directed to nonfunctional descriptive material. The limitations are directed to compilation of facts or data merely stored to be read without creating any functional interrelationship with the claimed subject matter. The MPEP states that when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability. For example, the claimed computer system differs from the prior art solely with respect to the limitation of LOPAC, United States Pharmacopeial Convention Inc.'s USP DI Series, or SMILES codes, nonfunctional descriptive material, that cannot alter how the machine functions (i.e., the descriptive material does not reconfigure the computer). See MPEP 2106, §VI. Therefore, the cited disclosure of Ogata, Goto, and Antman renders the claims obvious over the prior art.

53. In regard to claims 122 and 123, Goto and Antman describe all the limitations of said claims, except for the limitation of "sequence alignment" or "sequence homology." Ogata describes the sequence alignment and homology (Page 33, Column 1, Lines 33 and Figure 3, Table 3, and Page 33, Column 2, Lines 54-55).

54. Claims 96 and 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. (1998) (Goto hereafter) taken with Antman et al. (1992) (Antman hereafter) as applied to claims 1-3, 10, 14-23, 27, 28, 33-43, 59-64, 70, 76, 78, 89-91, 93, 94, 97-105, 120, 121,

124, 125, 127-129, 132, and 139-142 above, and further in view of Witzmann et al. (1994) (Witzmann hereafter).

BASIS FOR REJECTION

55. Goto et al. describes KEGG as a Web based system which is networked to a plurality of databases such as chemical compounds, molecular targets from GenBank (Goto et al., Abstract etc., page 594, column 2, Results and Discussion §). The inclusion of Ogata et al. is not being used as prior art, but only to discuss that KEGG comprises GenBank and Medline databases via additional links (Ogata et al., page 30, Table 1).

56. An artisan of ordinary skill in the art at the time of the instant invention would have recognized that the record type as exemplified by Witzmann would be present in Medline as supported by the Medline entry for the Witzmann reference having the Medline deposit date of May 1994.

57. In regard to claims 96 and 107, Goto and Antman describe all the limitations of said claims, except for the limitation of comprising 2-D topological descriptors or LD50 data. Witzmann describes 2-D topological descriptors or LD50 data (Abstract etc. and Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the KEGG computer system via Medline which comprising records from Medline as described by Witzmann, Goto, and Antman.

58. Claims 92 and 126 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. (1998) (Goto hereafter) taken with Antman et al. (1992) (Antman hereafter) as applied

to claims 1-3, 10, 14-23, 27, 28, 33-43, 59-64, 70, 76, 78, 89-91, 93, 94, 97-105, 120, 121, 124, 125, 127-129, 132, and 139-142 above, and further in view of Schena et al. (1996) (Schena hereafter).

BASIS FOR REJECTION

59. Goto et al. describes KEGG as a Web based system which is networked to a plurality of databases such as chemical compounds, molecular targets from GenBank (Goto et al., Abstract etc., page 594, column 2, Results and Discussion §). The inclusion of Ogata et al. is not being used as prior art, but only to discuss that KEGG comprises GenBank and Medline databases via additional links (Ogata et al., page 30, Table 1).

60. An artisan of ordinary skill in the art at the time of the instant invention would have recognized that the record type as exemplified by Schena would be present in Medline as supported by the Medline entry for the Schena reference having the Medline deposit date of Oct 1996.

61. In regard to claim 92, Goto and Antman describe all the limitation of claim 92, except for the limitation of method of recursive partitioning. Schena describes the recursive partitioning via a clustering algorithm (page 10615, column 2, lines 5-14). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the KEGG computer system via Medline which comprising records from Medline as described by Schena, Goto, and Antman.

62. In regard to claim 126, Goto and Antman describe all the limitation of claim 126, except for the limitation of "records...organized by location of expression tissues." Schena

describes the limitation of "records...organized by location of expression tissues (page 10618, entire column 2, Figure 3, and Table 2), as in claim 126. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the KEGG computer system via Medline which comprising records from Medline as described by Schena, Goto, and Antman.

CONCLUSION

63. Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

64. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199. The USPTO's official fax number is 571-272-8300.

65. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

66. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo, can be reached on (571) 272-3642.

C. Dune Ly /
Patent Examiner
5/28/06